

58. (currently amended) A method for manufacturing a magnetic memory element comprising:

forming a sense layer ~~over a substrate~~, said sense layer having a first ferromagnetic layer and a second ferromagnetic layer mutually separated by a conductive spacer layer and a characteristic which results in stray field coupling and antiferromagnetic exchange coupling between said first and second ferromagnetic layers across said conductive spacer layer;

forming a tunnel barrier layer ~~over~~ adjacent the sense layer; and

β forming a pinned ~~or reference~~ layer with a magnetization in a first direction ~~over~~ adjacent a side of said tunnel barrier opposite said sense layer.

59. (currently amended) A method of claim 58 wherein the act of forming said sense layer further comprises:

forming said first ~~magnetization~~ ferromagnetic layer over the tunnel barrier layer;

forming a conductive spacer layer over the first ~~magnetization~~ ferromagnetic layer; and

forming the second ~~magnetization~~ ferromagnetic layer over the conductive spacer layer.

60. (currently amended) A method of claim 58 wherein said conductive spacer layer is formed with a thickness such that the